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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,541	08/23/2001	Michael A. Vaudrey	10551/218	7941

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EXAMINER

ABEBE, DANIEL DEMELASH

ART UNIT PAPER NUMBER

2654

DATE MAILED: 03/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/934,541

Applicant(s)
Vaudrey et al.

Examiner
Daniel Abebe

Art Unit
2654



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 13, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, and 181-189 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 181-189 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 2654

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 182, 186 and 188 are rejected under 35 U.S.C. 102(b) as being anticipated by Mandell et al. (4,799,260).

As to claim 1, Mandell teaches a system for providing speech to remaining audio adjustment, comprising:

an audio decoder (Fig.9, 400) for simultaneously receiving a first signal comprising a low frequency audio component representing speech (Fig.9, 404) and a second signal comprising a high frequency audio component representing sound other than speech (Fig.9, 402), wherein the two signals are separately received and processed at the decoder (abstract; Col.15, lines 54-65; Col.2, lines 38-51; Col.3, lines 63-68).

As to claim 2, Mandell teaches the corresponding method comprising the steps of:

receiving at a decoder a high frequency component representing a high frequency background sound and a low frequency component representing speech signal where the two signals are separately received by the decoder (Fig.9).

Art Unit: 2654

As to claims 182 and 186, Mandell teaches where the received signals contain spatial/directional information that are recorded on two channels (abstract; Col.2, lines 60-64).

As to claim 188, Mandell teaches where the directionality of the separately decoded first signal and second signal are separately enhanced/adjusted based on the directional information contained in the signal (Col.15, lines 54-66; Col.2, lines 38-41).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 181 and 185 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandell et al. as applied to claims 1 and 2 above, and further in view of Morrison (5,809,472).

As to claims 181 and 185, Mandell doesn't explicitly teach where the signals are digital bit stream. Morrison, however teaches an audio decoder (Fig.3, 70) for separately decoding a first signal representing speech (Fig.3, 82) and a second signal representing signals other than speech (music, Fig.3, 84), where the first signal and the second signal are in digital form. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Mandell's teaching to transmit/receive the signals in digital bit stream, in view of Morrison, for

Art Unit: 2654

the purpose of providing an alternative means for transmitting the signals that improves the quality of the reproduced audio signals.

5. Claims 183, 184, 187 and 189 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandell as applied to claims 1, 2 and 188 above, and further in view of Cole (3,583,803).

With regards to claims 183, 184, 187 and 189, Mandell doesn't explicitly teach where a user is provided with a separate adjustment device for adjusting the signals. Cole teaches, in a motion picture system, an audio recording device where the audio recording device includes multiple sound stripes for separately recording music and speech signal and where a separate volume/amplitude adjustment device is provided for separately adjusting the amplitude of the two signals during reproducing the signal for each listener/passenger (Col.4, lines 5-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine Cole's teaching where separate adjustments are provided to the listener with Mandell's teaching, because, Mandell's system is used in a motion picture theater where it is desirable to enhance one sound over the other, based on Cole's disclosure, an artisan would recognize the desirability of providing separate adjustments devices in order to allow the listener control the output value of the different sounds.

Response to Arguments

6. Applicant's arguments filed on January 13, 2002 with regards to claims 1-2 have been fully considered but they are not persuasive.

Art Unit: 2654

The purpose of Mandell's art is for separately enhancing the directional/spatial information of a speech signal that is accompanied by a background audio signal such as a background music. This is done by separating the speech signal from the background audio signal and separately decoding the signal components that contain spatial information. It should be noted that The decoders in figure 9 for decoding the signals are shown separately for illustrative purpose only and can be combined in to a single unit, however the drawing show where the two components are received by the decoder, 402-4, separately. Decoder block 404 receives the speech/vocal signal while Decoder block 402 receives sound other than speech, such as music or other high frequency background signal "remaining signal" (Col.15, lines 54-65). The signals are separated at the filter in to a high frequency component (H.F) signal and a low frequency component (L.F), and once they are separated they are separately fed to the decoder and independently adjusted/steered.

Applicant's argument asserting that Mandell fails to teach where the signals comprise vocal information and information other than the vocal information is traversed.

According to Mandell the high frequency components received at block 402 represent high frequency background signal (such as music) and the low frequency component received at block 404 represent speech (Col.15, lines 54-65). Mandell further states where it is desirable to

Art Unit: 2654

enhance the speech/vocal signal separately from the remaining signal (music or HF background audio signal) by separately decoding the two signals.

The new ground rejection that is issued in this office action is necessitated by the new limitations added in the new dependent claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Engebretson (4,256,389), see entire document.

Art Unit: 2654

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Daniel Abebe whose telephone number is (703) 308-5543. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold, can be reached at (703) 305-4379. The facsimile phone number for this group is (703)872-9314.

Any inquiry of general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service office whose telephone number is (703) 306-0377

Daniel Abebe, Patent Examiner-Art Unit 2654

A handwritten signature in black ink, appearing to read 'Daniel Abebe', with a stylized, flowing script.

February 6, 2003